

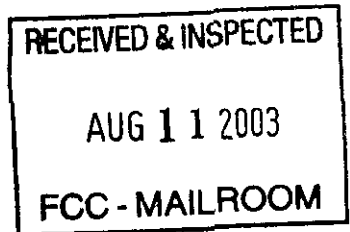


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INSTRUCTIONAL TECHNOLOGY
GRANT JOINT UNION HIGH SCHOOL DISTRICT
5201 ARNOLD AVENUE, BLDG. 7 SACRAMENTO, CA 95652
PH: (916) 570-0185 FAX: (916) 570 0268

August 8, 2003

FCC, Office of the Secretary
445 12th Street SW
Washington, DC 20554



RE: **Appeal for CC Docket No. 02-6**
Billed Entity Number: 144621
471 Application Number: 316355
Funding Request Number(s): 850155
SLD Correspondence dated July 14, 2003

On July 14, 2003, the Grant Joint Union High School District received a "Denied in Full" response to our Schools and Libraries Division ("SLD") appeal dated April 18, 2003. Please refer to Attachment A.

According to the SLD appeals guidelines, please use this correspondence as our formal appeal to the Federal Communications Commission ("FCC") regarding SLD's decision to "deny in full" Funding Request Number 850155. The reference for this appeal is **CC Docket No. 02-6**.

The basis for our appeal is the SLD interpretation that the submitted "video on demand (VOD)" software was categorized as content and not a transporting operating system. In addition, the SLD used the cost of the video on demand software to calculate a 44% cost of ineligible services

The Grant Union Unified School District is providing a full system description of the video on demand system submitted under Funding request Number 850155. It is our position that each component of the video on demand system meets the definitions provided by the SLD "Eligible Services List" for Internal Connections dated October 18, 2002.

As part of this FCC appeal, we are providing the functionality of each component of the submitted video on demand system and the correlated SLD description as outlined in their Eligible Services List. The submitted video on demand system architecture is as follows:

- A. Video Server/Video on Demand (Vo IP) System which consists of:
 - 1. Video over IP Server
 - 2. Storage and Transport
 - 3. Fiber Switching Equipment
 - 4. Ethernet Switching
 - 5. **VOD Operational System Software (This is the only part identified as ineligible)**
 - 6. Client Operational Software
- B. Quad Video Encoders

- C. Video Encoding Management Station
- D. Video server cabinet
- E. Intelligent Cable Modems.

Please refer to Attachments A, B, C, and D for details. **Attachment A**, SLD Denial Letter dated July 14, 2003. **Attachment B**, Marketware Technologies' proposal dated January 10, 2002; **Attachment C**, e-mail to SLD dated February 13, 2003; **Attachment D** SLD Eligible Services List for Internal Connections dated October 18, 2002.

A. Video Server/Video on demand IP Video

The Video on Demand system submitted under Funding Request Number 850155 does meet the SLD Eligibility Services List. Contrary to the interpretation reached by the SLD, a Video on Demand system is "NOT CONTENT". **A video on demand system is a video distribution system, which uses video over IP technology and transports information for individual classrooms.** It does not contain any CONTENT nor does it have any specialized services associated with either Telecommunications Services or Internet Services.

A video on demand system is identical to what the SLD categorizes as a PVBX, Video Equipment Master Control Unit and Voice/Video over IP (VoIP) systems. The video on demand system submitted under Funding Request Number 850155, complies with the all of the eligible services outlined within the SLD "Eligible Services List", specifically:

SLD Eligible Services List Dated October 2002, Page 24:

Service: PVBX

Description:

*A PVBX or Private Video Branch Exchange is a video PBX. The PVBX integrates the functionality of a PBX by providing video integrated into the switching matrix of the PVBX. The PVBX acts as a **video distribution system** linking classrooms and administration as well as traditional PBX methodologies.*

A PVBX follows the same eligibility requirements as a PBX- in general, it is eligible for discount. See the listing for PBX for detailed eligibility information.

SLD Eligible Services List Dated October 2002, Page 29:

Service: Video Equipment

Description:

Master Control Unit (MCU) is a device that controls the main operating system functions of a video system. An MCU is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library. It is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library, but ineligible if used as end-user equipment.

SLD Eligible Services List Dated October 2002, Page 31:

Service: Voice/Video over IP (VoIP)

Description:

Eligible Internal Connections components may include technology for providing real-time or near real-time voice or video over IP (VoIP)

Note, however, that any additional service charges for providing VoIP capability, as a part of the Internet Access are not eligible See the entry for Specialized services in the Internet Access section

A.1. Video Over IP Server:

In a video on demand system, the server is used to control the main operating functions of a video system. It also provides the central processing for the transporting of information for individual rooms. Therefore, the functionality of the Video over IP Server is identical to the Video Equipment; Master Control Unit services listed on page 29 of the SLD "Eligible services List" which reads:

"Master Control Unit (MCU) is a device that controls the main operating system functions of a video system An MCU is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library It is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library, but ineligible if used as end-user equipment"

A.2. Storage

In a video on demand system, storage is used to store the network operating system files and transport the video bandwidth for the Video over IP System. The submitted system is designed to handle up to 1000 concurrent video distribution sessions with a bandwidth of 4MB per each session. The purpose of the storage is to transport the stored information all the way to the individual classroom.

According to the Storage Products services described on page 27 of the SLD "Eligible Services List", the submitted video on demand storage does meet the aforementioned SLD eligible services requirements, which reads:

" Storage Products. Products that provide electronic data storage on magnetic or other media, for eligible file servers or other eligible products, are conditionally eligible, based on whether the software and/or data stores provides an eligible purpose, e.g. if it is necessary to transport information all the way to individual classrooms"

A.3. Fiber Switching Equipment and A.4. Ethernet Switching

In a video on demand system, the fiber and Ethernet switching components, are used to transport the stored information all the way to the individual classroom.

According to the Switches and TX to FX Converter described on SLD “Eligible Services List” (pages 28 and 29 respectively), the submitted video on demand fiber and Ethernet switches meet the aforementioned SLD eligible services requirements.

A.5. VOD Operational System Software

In a video on demand system, the VOD software is a core operational component required to provide system functionality. Without the VOD software, THE SYSTEM DOES NOT FUNCTION.

This is where we believe the SLD is misinterpreting the functionality of the VOD software. In their denial letter, SLD used the VOD software submitted costs of \$ 603,642.44 to reach the 44% ineligible figure. SLD categorized this software as CONTENT. As mentioned above, the VOD software is core to the operation of the video on demand system. Without it, the system will not function.

The submitted VOD software is designed to transport up to 1000 concurrent video distribution sessions at a bandwidth of 4MB to individual classrooms. This requires a high-level operating system software (VOD software) which can provide the quality of service (QoS) to accommodate and transport the necessary bandwidth (1000 concurrent sessions times 4.5 MB).

In addition, a video on demand system must provide archiving and indexing as part of the operating system. This guarantees the quality of services needed to achieve transportation of information all the way to the classroom.

Therefore, according to the Software Services, Operational Software Description outlined on the SLD “Eligible Services List” (pages 26 and 27 respectively), the submitted VOD software does meet the aforementioned SLD eligible services requirements, which reads:

SLD Eligible Services List Dated October 2002, Pages 26 and 27:

Service: Software

Description:

Operational Software: *Software required to obtain operation of eligible equipment, such as network operating system software, is eligible if required as a core component of an eligible Internal Connection. Software available separately that provides optional operational features are not eligible for discount. Examples of ineligible operational software include separate products that provide caching, filtering, firewall, network administration, and network management, and web site construction. Such functionality may be included as an ancillary component of otherwise eligible operational software, but only if the conditions for ancillary use apply. See the entry for bundled Products in this section for further information.*

A.6. Client Operational Software

In a video on demand system, the client operational software is required to transport information from the video server all the way to the individual classrooms. Without this client software, information cannot be transported to the individual classrooms.

Therefore, according to the Video Equipment, Video Group and Desktop Equipment Services, outlined on the SLD "Eligible Services List" (pages 29 and 30 respectively), the submitted VOD software does meet the aforementioned SLD eligible services requirements, which reads:

Service: Video Equipment

Description:

Video Group and Desktop Equipment: *Equipment used to control programming, distribution, and selection of video conferencing or television broadcast It is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library, but is ineligible if used in end user equipment.*

B. Quad Video Encoders

In a video on demand system, video encoders are used to compress audio and video signals so that they can be transported to the individual classrooms over the Video over IP network.

Therefore, according to the CODEC and Video Equipment, MPEG Video Encoder, outlined on the SLD "Eligible Services List" (pages 18 and 30 respectively), the submitted VOD software does meet the aforementioned SLD eligible services requirements, which reads:

" CODEC. The coder/decoder, also known as CODEC, is a device comprising an encoder and decoder in the same equipment. The CODEC produces a coded output and compresses and decompresses audio and video signals The CODEC is eligible for discount if used in the transport of information to eligible locations for eligible uses"

" MPEG Video Encoder· MPEG Video encoder is a device similar to a CODEC that converts analog signals to compressed MPEG See the entry for CODEC for eligibility conditions"

C. Video Encoding Management Station:

In a video on demand system, the encoding management station manages the transportation of audio and video signals to the individual classrooms over the Video over IP network.

Therefore, according to the CODEC and Video Equipment, MPEG Video Encoder, outlined on the SLD "Eligible Services List" (pages 18 and 30 respectively), the submitted VOD software does meet the aforementioned SLD eligible services requirements.

D. Video Server Cabinet

Houses file servers, storage and decoders, switches and related internal wiring. Meets the eligible services list according to page 17, Cabinets and Wiring, Internal, page 32.

E. Intelligent Cable Modems:

In a video on demand system, intelligent cable modems are used as video decoders and provide a high-speed data path on a TV coaxial circuit located in each classroom. In addition, the intelligent cable modems are required to transport information over the Video over IP System all the way to each classroom

Therefore, according to the Cable Modem and Video Equipment, MPEG Video Encoder, outlined on the SLD "Eligible Services List" (pages 17 and 30 respectively), the submitted VOD software does meet the aforementioned SLD eligible services requirements, which reads:

"Cable Modem. A cable modem is a modem designed for use on a TV coaxial circuit, and provides a high speed data path. If used to provide Internet Access or telecommunications Services distributed to multiple internal locations, cable modems are eligible. If located in or with end-user equipment or used for cable TV service, they are not eligible".

CONCLUSION:

According to the SLD "Appeals Guidelines", there are four circumstances when appeals can be granted, assuming there are no other issues identified during the appeal. One of the four circumstances relates to SLD making a mistake and denies funding because the funding request includes 30% or more of ineligible services.

The Grant Joint Union High School District strongly believes that the submitted video on demand system on FRN 850155 meets this criterion.

The VOD operational system software is NOT CONTENT as interpreted by SLD. It is as previously stated, operational software.

Our appeal includes the documentation, which supports our position: all of the components for the submitted video on demand system meet the SLD Eligible Services List. We hope that the FCC reaches the same conclusion and that the appeal for **CC Docket No. 02-6** is granted accordingly.

If you have any questions or need additional information, please feel free to contact me at 916 570-0181.

Sincerely,



Jim Chapman, Director
Instructional Technology



Universal Service Administrative Company
Schools & Libraries Division

Administrator's Decision on Appeal - Funding Year 2002-2003

July 14, 2003

Jim Chapman
Grant Joint Union High School District
5201 Arnold Avenue, Building 7
McClellan, CA 95652

Re: Billed Entity Number: 144621
 471 Application Number: 316355
 Funding Request Number(s): 850155
 Your Correspondence Dated: April 18, 2003

After thorough review and investigation of all relevant facts, the Schools and Libraries Division ("SLD") of the Universal Service Administrative Company ("USAC") has made its decision in regard to your appeal of SLD's Year 2002 Funding Commitment Decision for the Application Number indicated above. This letter explains the basis of SLD's decision. The date of this letter begins the 60-day time period for appealing this decision to the Federal Communications Commission ("FCC"). If your letter of appeal included more than one Application Number, please note that for each application for which an appeal is submitted, a separate letter is sent.

Funding Request Number: 850155
Decision on Appeal: **Denied in full**
Explanation:

- Your appeal letter states that it is your interpretation that the components and services listed under FRN 850155 meet the framework compliance for the video services as described in the USAC "Eligible Services List".
- During the initial review process, you were contacted by SLD and asked to provide additional information on the RM-VD Multimedia IP Video Server. In your response of 2/13/03, you listed each component, its price and usage. The server package included Video On Demand Software at a cost of \$603,642.44. The Eligible Services List on the website does not contain a specific listing for video on demand, but does state that content distribution is ineligible. Video on Demand software is ineligible as content video distribution.

- Your Form 471 application included costs for the following ineligible services: Video on Demand. FCC rules provide that discounts may be approved only for eligible services. See 47 C.F.R. §§ 54.502, 54.503. The USAC website contains a list of eligible services. See USAC website, <http://www.universalservice.org>, Eligible Services List. Program procedures provide that if 30% or more of an applicant's funding request includes ineligible services, the funding request must be denied. 44% of your funding request was for ineligible services. Therefore, your funding request was denied. You did not demonstrate in your appeal that your request included less than 30% for ineligible services. Consequently, SLD denies your appeal.

If you believe there is a basis for further examination of your application, you may file an appeal with the Federal Communications Commission (FCC). You should refer to CC Docket No. 02-6 on the first page of your appeal to the FCC. Your appeal must be POSTMARKED within 60 days of the above date on this letter. Failure to meet this requirement will result in automatic dismissal of your appeal. If you are submitting your appeal via United States Postal Service, send to: FCC, Office of the Secretary, 445 12th Street SW, Washington, DC 20554. Further information and options for filing an appeal directly with the FCC can be found in the "Appeals Procedure" posted in the Reference Area of the SLD web site or by contacting the Client Service Bureau. We strongly recommend that you use either the e-mail or fax filing options.

We thank you for your continued support, patience, and cooperation during the appeal process.

Schools and Libraries Division
Universal Service Administrative Company

GRANT
JOINT
UNION
HIGH
SCHOOL
DISTRICT

CC Docket No 02-6
Attachment B



Instructional Technology Department
5201 Arnold Ave.
Building 7
Mc Clellan, CA 95652

Main Office: 916-570-0180
Fax: 916-570-0268

471 APPLICATION #316355

BUILD ENTITY #144621

J.P. ✓
Grant High
FRN= 250155



rising like the Phoenix

*"A New Education
for a New Economy"*

01/10/02

Thank you for allowing Marketware Technologies the opportunity to propose an RMSI Multimedia Video Server with encoders to meet your current requirements. We are proposing a load balanced video server configuration with enough storage to hold up to 1000, 2 hour MPEG-1, MPEG-2 video courses at a streaming bit rate of 6Mbits per second or less. The video system is configured such that if any one computing element, storage or encoder is taken off line for maintenance, the system will still be able to encode and deliver streaming video signals to your IP based network. This Video on Demand system is configured to support up to 1000 concurrent unicast video streams. The system is upgradeable beyond this. The proposed encoding scheme allows for streaming directly to the video distribution network or directly to storage for playback at a later time. A Web based front end that may be dynamically updated to reflect the availability of new video content will easily construct a catalogue of encoded materials for use through set top boxes (included) or directly on students workstations if attached directly to the IP network.

RMSI has over 10 years experience in building and delivering standard digital video systems, custom digital video systems and providing turnkey design and integration services. RMSI has a nationwide installed base of over 300 video servers providing support education and government nationally.

Video Server

Multimedia IP Video Server RM-VD 1000

\$1,050,000

An innovative product from RMSI that delivers high-performance video streaming to networked users. THE RMSI video server employs patented streaming technology for the most efficient client/server streaming over any IP compatible network, including Ethernet, Fast Ethernet, Gigabit Ethernet, ATM, cable modems, and xDSL. The system supports IP multicast technology to deliver high-quality video with easy-to-use TV-like operation supporting both MPEG-1 and MPEG-2 video formats and integrates with end devices such as STB's to enable features such as instant replay and automatic recording.

MARKETWARE TECHNOLOGIES

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To achieve the 1000 stream requirement we employ our powerful expansion software offering the ability to group video servers together, providing near-unlimited streaming throughput, as well as the ability to link these clusters of servers together in a distributed architecture, allowing video content to be cached and efficiently transported across geographically diverse points, allowing near-infinite increase of streaming throughput. This Rack Mount video server cluster with six Dual 1.5 GHz Processors, 12GBs RAMBUS memory @ 400 MHz front side bus, AGP 4x Graphics with 256 MB DDR High speed memory, Multiple Gigabit Ethernet 64 Bit 66/MHz Fibre Network Connection, N+1 Hot Swap Power Supplies, Windows 2000 Advanced Server. This system will be Licensed for 1000 concurrent streams of video at an average of 4Mbps each stream. Server contains all system software necessary for managing and controlling the capture, archiving, cataloging and distribution of video content with control mechanisms in place to allow the video server to interact directly with the cable modems in each classroom for playback control. Upgradeable. Five year on site parts and labor warranty. Hardware and Software Documentation.

Quad Video Encoders RM-VENC-MP4

\$72,100

Rack Mounted MPEG-1, MPEG-2 and MPEG-4 encoding from Satellite (ASI), SDI, SVHS, DVD or Live Camera Feed. Allows up to four concurrent video streams to be captured, encoded and either archived for later viewing or live broadcast via broadcast, unicast or multicast directly to the IP based network in real time. Upgradeable. Five year on site parts and labor warranty. Documentation.

Video Encoding Management Station RM-VEMS

\$16,750

Video Encoding station that provides dual 20" high res color monitors, and video encoding management system software for concurrent monitoring of multiple video streams including, indexing encoded material, setting encoding quality parameters, Encoding quality control for live or archived video materials, content database management and distribution setup/control. Upgradeable. Accounting and Asset management functions.

MARKETWARE TECHNOLOGIES

CC Docket No. 02-6
Attachment B

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Video Server Cabinet RM-CAB40UPSKMM Qty 1 \$15,825
MediaStor Cabinet 40U (72"Hx22"Wx38"D) Black; w/ fan unit; 15" LCD Flat Screen Monitor,
Keyboard with Mouse, Utility Drawer; KVM Switch, APC Smart UPS 3000 VA UPS system.
Five year on site parts and labor warranty. Documentation.

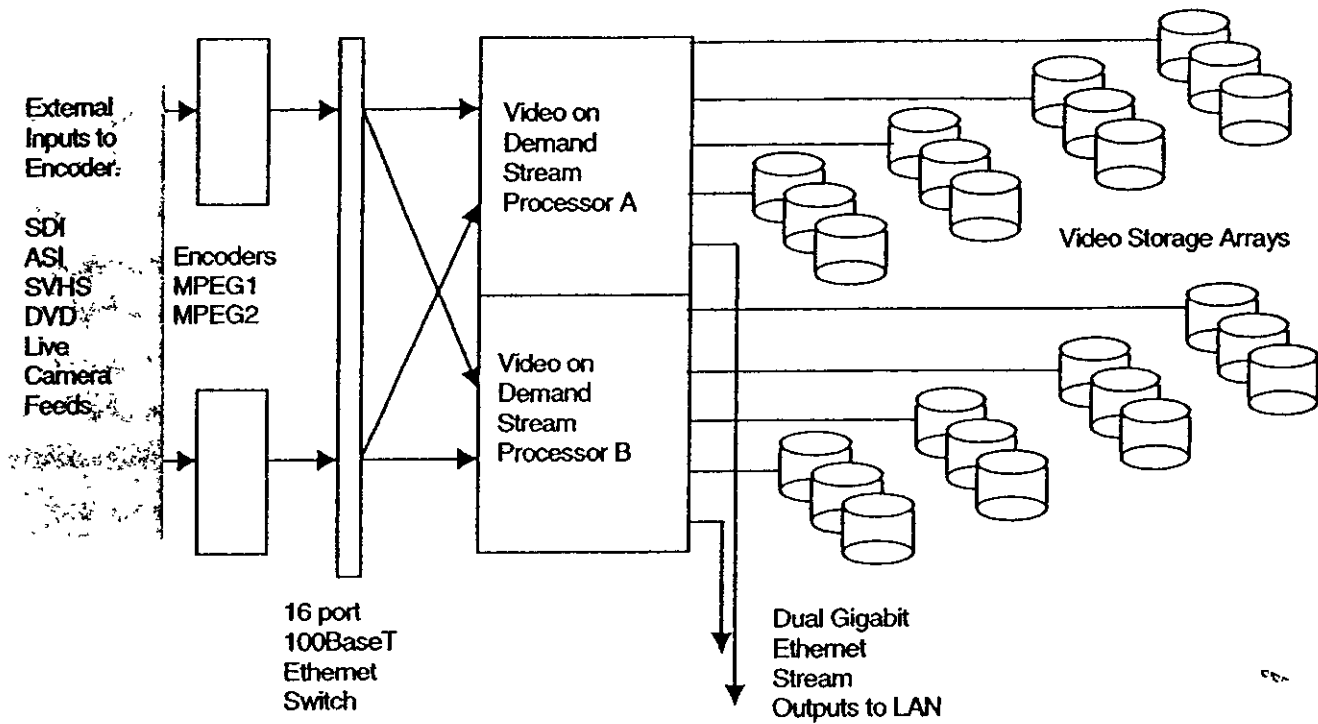
Intelligent Cable modems CTV3000-3EN62XXXUB Qty. 70 \$55,200
ConnectTV Broadband Set-Top Modem, 300Mhz processor, 100Mbit Ethernet, RJ45,
NTSC Video modulator output to standard TV inputs. Hand held remote and keyboard.
Each box ships with Connect TV system software to interoperate with Video Server software.
Documentation

<u>Multimedia IP Video Server</u> RM-VD 1000	\$1,050,000
<u>Quad Video Encoders</u> RM-VENC-MP4	\$72,150
<u>Video Encoding Management Station</u> RM-VEMS	\$16,750
<u>Video Server Cabinet</u> RM-CAB40UPSKMM Qty 1	\$15,825
<u>Intelligent Cable modems</u> CTV3000-3EN62XXXUB Qty. 70	\$55,200
	<u>\$1,209,925</u>

Video Server System Subtotal	\$1,209,925
Installation and set-up (15 days all school ocations)	\$23,500
On-Site Configuration and Training (200 Man hours)	<u>\$23,750</u>
Sub-total	\$1,257,175
Shipping	0
Sales Tax	\$ 97,431.06
Total	<u>\$ 1,354,606.06</u>

MARKETWARE TECHNOLOGIES

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Scott Reilly
Marketware Technologies
819 Striker Ave, #16
Sacramento, CA 95834
916-925-3337

Cyril Kalbach

From: Cyril Kalbach
Sent: Thursday, February 13, 2003 11:05 AM
To: 'Complex Services Complex Services'
Cc: 'Stella Blaney', Cyril Kalbach; Jim Chapman; Marty Schloegel
Subject: RE SLD Application 316355 Grant Joint UN High School District

Sherry,

Below are your questions with each answer following the question:

(1) I need the complete list of hardware and software components on the RM-VD Multimedia IP Video Server. This also should include a listing with pricing and usage of all the software that is used on this server.

Answer:

Servers - \$31,553.29

The servers are optimized to provide video to hundreds of individual users simultaneously. They are clustered and load-balanced. As per the original quote, each of the discrete units incorporate dual CPUs, 2gigs of RAM, AGP video, gigabit Ethernet (1000BaseTx), and internal storage for bootstrap. Six individual (and inseparable) units are included in this cluster, and are available in other configurations from 4 to 16 units in multiples of two.

Client Licenses - \$39,365.07

The client licenses incorporate all necessary licenses to allow remote users access to the clustered video servers.

Storage - \$238,297.97

The storage for the aforementioned cluster includes a total of 12TB of disk, with 10TB usable after RAID overhead. These are fiber-channel disks, configured in a RAID 5 array.

Fiber Switching Equipment - \$133,133.58

The switching equipment incorporates switches, cables, and interfaces to connect the storage subsystem to the clustered servers. This is a redundant system with failover, designed to allow continuous access to the storage system in the event of a physical or logical failure. This package also includes the storage management software, licensed for the 10TB array.

Ethernet Switch - \$4,007.80

The Ethernet switch aggregates the clustered servers and provides uplink capability to the local LAN.

VOD Software - \$603,642.44

The video on demand software is a complete solution, and includes all features and functions necessary to effectively manage and archive incoming video as well as supporting up to 70 outgoing feeds. As per the original quote, the VOD software also supports cataloging and indexing of stored video feeds as well as inventory control of all set top boxes.

Total: \$1,050,000.00

(2) What software is licensed on a per-user or per-gigabyte basis (depending on the specific piece of software in question)?

Answer: At the time of the quote, the software used in the storage system was licensed on a per-user basis, and the video on demand software was licensed on a per-gigabyte (of streamed video) basis. That has changed, and now all software is licensed on a per-user basis.

INTERNAL CONNECTIONS

Eligibility Requirements for All Internal Connections:

Internal connections are components located at the applicant site that are necessary to transport information to classrooms, publicly accessible rooms of a library, and, in certain circumstances, to administrative areas or buildings. (See the "Administrative Offices and Buildings Fact Sheet" in the Reference Area of the SLD web site, www.sl.universalservice.org, for further information.) Internal Connections include connections within, between or among instructional buildings that comprise a single school campus or library branch, but do not include services that extend beyond that single school campus or library branch.

SERVICE	ELEMENT/DESCRIPTION	ELIGIBILITY
Antenna	<p>A device for transmitting and/or receiving radio frequency signals. Antennas as part of Wireless Local Area Networks (LANs) are eligible for discount</p> <p>Only the cost of the antenna and related radio frequency components are eligible if used for a workstation or PC, rather than the cost of a full network interface card. If the antenna is a part of a network interface card installed in a workstation or PC, the cost of the network interface card portion must be allocated out of the funding request by the vendor/manufacturer for this combined product</p> <p>Antennas used for the receipt of over-the-air radio and television broadcast signals, or radio signals from cable television operators, are not eligible.</p> <p>Antennas used for Wireless Wide Area Networks (WANs) are not eligible as Internal Connections, but may be eligible as a part of Telecommunications Services or Internet Access. For further information, see the entries for "Wide Area Network" and "Wireless Wide Area Network" in the Telecommunications Services section, and the entry for "Wide Area Network" in the Internet Access section.</p>	
Asbestos Removal	The cost incurred in the removal of asbestos is not eligible for discount.	Not Eligible
Attendant Console, PBX/Centrex	The operation of a PBX or Centrex system requires the use of a switchboard or attendant console for the transfer of incoming calls to the appropriate extension when systems are not equipped with Direct Inward Dialing. The attendant console may include Direct Station Selection (DSS), which provides an easy means for transferring calls. One Console, with or without Direct Station Selection, qualifies for discount with each eligible PBX or Centrex system.	
Automatic Call Distribution System (ACD)	An Automatic Call Distribution system, typically used with a PBX, provides a means of automatically distributing calls evenly, on a next available agent basis so that productivity is maintained and inbound calls are handled efficiently. The system also allows the monitoring of operation on a real time basis. Additionally, some systems compile historic reports that enable better utilization of resources in the handling of incoming calls.	Not Eligible

Automatic Route Selection (ARS)	Automatic Route Selection (ARS) is a PBX and Centrex service that allows for automatic selection of the most efficient and cost effective route. It may also be referred to as "least cost routing". By using the ARS feature, PBX and Centrex stations are routed to the most cost efficient service, or facilities, to make outgoing telephone calls. The cost of the equipment required to provide ARS is eligible for discount.	
Backup Equipment	<p>"Backup equipment" used in the context of spare parts is not eligible for discount.</p> <p>"Backup equipment" used in the context of data protection, such as a tape backup system, is eligible when used as part of an eligible component such as an eligible server. See also "Tape Backup" in this section.</p>	
Battery Backup	A battery backup includes a battery and associated electronics, and provides power to one or more components when the main AC power fails. The battery backup is eligible only if part of, or used with, an eligible component.	
Beeper	See the entry for Pager in this section.	Not Eligible
Broadband Amplifier	A Broadband Amplifier is a device utilized to amplify UHF, VHF, or FM radio signals greater than 3 kHz. If used in conjunction with eligible internal connections, the Broadband Amplifier is eligible. See also Broadband VHF & UHF Preamplifiers.	
Broadband VHF & UHF Preamplifiers	<p>Broadband VHF & UHF Preamplifiers are designed for use with broadcast radio and TV antennas. Preamplifiers are electronic devices that boost an audio or video signal, prior to that signal being amplified for reproduction through a monitor or speaker.</p> <p>Preamplifiers are used with broadcast receiving antennas and are not eligible for discount. See also Broadband Amplifier.</p>	Not Eligible
Bundled Products	<p>Some products or services may contain both eligible and ineligible components. In general, funding requests that provide only a single price for a product or service that contains both eligible and ineligible functionality are fully ineligible. However, cost allocation may be used to provide separated pricing for the eligible and ineligible components.</p> <p>In addition, in certain limited cases, an eligible product or service can include ineligible components on an ancillary basis. The full product may be eligible in this case if the following conditions apply:</p> <p style="text-align: right;">(continued on next page)</p>	

	<p>(continued from previous page)</p> <ul style="list-style-type: none"> • The package represents the most cost-effective bid for the eligible product or service. • The consideration of cost-effectiveness must be made without considering ineligible features. • The package is a standard product offering that includes the ineligible features as an intrinsic part, with no separated pricing available. • The applicant is not specifically seeking one or more of the ineligible components. • Any added content must be minimal. <p>Products and services for which this ancillary use provision apply are specifically indicated in their description in this Eligible Services List.</p> <p>For further information, see <u>"Cost Allocation Guidelines for Products and Services that Contain Eligible and Ineligible Components,"</u> located in the Reference Area of the SLD Web site (www.sl.universalservice.org).</p>	
Cabinets	An enclosure for equipment, terminating cables, connection devices and/or wires is eligible if the contained equipment is eligible	
Cable Modem	<p>A cable modem is a modem designed for use on a TV coaxial cable circuit, and provides a high speed data path.</p> <p>If used to provide Internet Access or Telecommunications Services distributed to multiple internal locations, cable modems are eligible. If located in or with end-user equipment or used for cable TV service, they are not eligible.</p>	
Cabling	See Wiring, Internal	
Call Accounting Systems	A Call Accounting System records information about telephone calls. It can provide comprehensive call costing by associating call records with users, phone extensions, or profiles. Call accounting systems are not necessary to transport Telecommunications or Internet access to the classroom or publicly accessible rooms of a library, and are not eligible for discount.	Not Eligible
Call Sequencer	A Call Sequencer, also called Automatic Call Sequencer, is a device or adjunct piece of equipment, used with a PBX or Key system. The call sequencer distributes incoming telephone calls among a select number of stations or telephones. It may also be used to answer incoming telephone calls and provide prerecorded announcements to the caller. Some call sequencers are also designed to generate statistical reports on number of calls and how those calls were handled. Call sequencers are not necessary to transport Telecommunications or Internet access to the classroom or publicly accessible rooms of a library, and are not eligible for discount.	Not Eligible
Cartridge Magnetic Tape	Cartridge Magnetic Tape, which holds a magnetic tape of some type, is an expendable item and is not eligible for discounts.	Not Eligible

CD Tower	CD ROM Towers are multi-bay CD ROM storage devices used to provide access to content stored on CD ROM discs. Provided in a wide variety of speeds and capacities, CD ROM Towers, when used with network servers, offer schools and libraries access to large volumes of data. CD Towers are not eligible for discount.	Not Eligible
Channel Service Unit /Data Service Unit (CSU/DSU)	<p>A CSU/DSU is a device that terminates a digital channel at a customer premises. It performs certain line coding, line conditioning, and line equalization functions, and it responds to loop back commands sent from the telephone company central office. A CSU/DSU sits between the digital line entering the customer premises from the central office and devices such as channel banks or data communications devices. A CSU/DSU is eligible as Internal Connections.</p> <p>Alternatively, a CSU/DSU may be provided as part of an eligible Telecommunications or Internet Access service.</p>	
Circuit Card	A Circuit Card is a board with microprocessors, transistors, and other small electronic components. Such a board slides into the slot of a telephone system, personal computer, or other electronic equipment. To be eligible, the circuit card must be a necessary part of eligible equipment, e.g., part of an eligible PBX, router, or file server.	
Client Access Licenses	A Client Access License is a software licensing approach used by some vendors, and provides authorization to access a software product. Client Access Licenses that provide access to eligible software are in turn eligible. For example, Client Access Licenses for a network operating system are eligible. Client Access Licenses for word processing or spreadsheet software are not eligible.	
CODEC	The coder/decoder, also known as CODEC, is a device comprising an encoder and decoder in the same equipment. The CODEC produces a coded output and compresses and decompresses audio and video signals. The CODEC is eligible for discount if used in the transport of information to eligible locations for eligible uses.	
Communications Server	See the entry for Remote Access Server.	
Conduit / Raceway	<p>Conduit and raceway are metal or plastic pipe used to protect cable. They are eligible if used as a means for housing eligible internal connections cabling.</p> <p>Conduit used for electrical wiring is not eligible for discount. If conduit has a mixed use, such as for both electrical wiring and network cabling, cost of the ineligible portion must be excluded.</p>	
Connector	A device that electrically connects wires or fibers in cable to equipment, or other wires or fibers. Connectors for eligible cabling or equipment are eligible.	

Consumables	Miscellaneous components such as tape, splicing materials, labels, and wire wrap are eligible if included as part of the original installation of eligible components. Consumable products are ineligible when they are not included as part of an original installation. Consumable kits which contain installation tools are ineligible.	
Coupler	The coupler is a passive device that accepts one input broadband signal and replicates it onto two or more outputs . If the coupler is part of the installation of eligible coax cable, then the coupler is eligible for discounts. If a part of installation of cable television service, the coupler is not eligible for discounts.	
Digital Video Disc Digital Versatile Disk (DVD)	The acronym "DVD" stands synonymously for both Digital Video Disk and Digital Versatile Disk. DVDs are optical storage devices similar to CD-ROM discs but able to store much more music, video and data. DVD media is not eligible for discount.	Not Eligible
Digital Video – Read Only Memory Player	A Digital Video Disc - Read Only Memory or DVD-ROM Player or drive is a device which plays or reproduces the music, voice and/or video from a Digital Video Disc. It is not eligible for discount. However, a DVD-ROM player may be provided as an integral component of an eligible product such as an eligible file server, if it is part of the standard product configuration and provided at no additional cost.	Not Eligible
Disaster Recovery	Disaster Recovery, which describes the means of restoring service to a computer network that has suffered a disaster, is not eligible for discounts. Such costs may include the rental of a site that houses links and equipment that is modeled after the network.	Not Eligible
Documentation	Documentation includes support material provided in the form of paper or electronic media. It may include diagrams, blueprints, equipment specifications or instruction manuals for services and products. Documentation is eligible for discount if provided as part of the purchase or installation of eligible equipment or eligible services.	
Edge Device	An Edge Device is a physical device that can pass packets between a legacy type of network and an ATM network. The device may be a router or Ethernet-to-ATM switch that directly connects to an ATM network. Edge Devices are eligible for discount.	
E911 Reader Board	The E911 Reader Board is adjunct hardware for a PBX and used to access E911 Emergency service. See also 911/E911 Enhancements to PBX.	Not Eligible
Electrical System Upgrades	The addition of electrical circuits and outlets to accommodate the addition of network computer hardware is not eligible	Not Eligible
Enhanced Multimedia Interface (EMMI)	See the description for EMMI in the entry for Video Equipment in this section.	

Environmental Monitoring Card/Meter	The Environmental Monitoring Card is an uninterruptible power supply card used to monitor the environmental conditions in rack, computer room, and data center environments. It is used in climate control and is not a component of Internal Connections used to deliver information to the classroom. The Environmental Monitoring Card/Meter is not eligible for discount.	Not Eligible
Faceplate	A cover that fits around pushbutton or rotary dial phones is not eligible . Faceplates for electrical outlets are ineligible . A cover over an eligible communications jack or outlet is eligible.	
FAX Machine	Short for facsimile, it is a device in which the image of a document is electronically transferred over the telephone network and printed out elsewhere.	Not Eligible
FRAD	Short for Frame Relay Assembler/Disassembler, the FRAD is a communications device that breaks a data stream into frames for transmission over a Frame Relay network and recreates a data stream from incoming frames. A Frame Relay router serves the same purpose but provides more intelligence in avoiding congestion. FRADs are eligible for discount.	
Frame Relay PVCs	A Permanent Virtual Circuit (PVC) is a permanent association between two DTEs (Data Terminal Equipment) established through configuration. PVCs are widely used in X 25 networks, are the basis on which communications take place in a Frame Relay Network, and are eligible for discount .	
Graphics Cards / Adapters	A Graphics Card, Graphics Adapter or Video Adapter is a circuit board fitted to a computer, containing the necessary video memory and other electronics to provide a bitmap display. Graphics Cards are eligible for discount so long as they are a component of an eligible server. Graphics Cards used in workstations or end user PCs are ineligible for discount.	
Hard Disk Drive	Hard disk drives, including arrays of multiple drives, are eligible for discount if used with an eligible component such as a server, for an eligible use, e.g., if they are an essential element in the transmission of information within the school or library . Hard drives and other storage devices are not eligible if used principally to supplement storage requirements of personal computers on a network. See the entry Storage Products for additional information.	
Head-End Equipment	Head-End Equipment is located at the originating point for signals in cable TV systems , and is not eligible for discounts.	Not Eligible
Homework Hotline Equipment	Equipment used to provide Homework Hotline, including text to voice translation modules, recording devices, automatic dialers, automatic call directors and others are not eligible for discount. See also the entry for Homework Hotline Service in the Telecommunications Services section of this document.	Not Eligible
Hub	Hubs are devices that serve as the control point for system activity, management and growth. A central connection point, hubs are standard terminology for a device with multiple ports that connects multiple computers in a network, and are eligible for discount .	

Intercom System	An Intercom System that is a stand-alone system, and not integral as a bundled component of a PBX, Centrex or key system, is not eligible for discount.	Not Eligible
Key System KSU	Key System, also known as Com Key System, is a type of phone system that permits more than one telephone line, PBX extension, private line or intercom line to appear on a single telephone, and is conditionally eligible. Only the costs associated with the common control unit and not any costs associated with telephone sets are eligible for discounts.	
Laptop Computer	A laptop computer is a lightweight portable computer designed for mobility. Laptop computers are eligible for discount only if they are used as an eligible server. However, in most cases laptop computers will not meet the definition of eligible Internal Connections and will be used as workstations which are not eligible for discount.	
Lightning Arrestor	Lightning Arrestor, which protects computer equipment from lightning and static, is not eligible for discounts.	Not Eligible
Local Area Network (LAN)	A Local Area Network (LAN) is a short distance data communications network used to link together computers and peripheral devices under some form of standard control. The LAN is most often connected by cabling or wireless links within the same building. A Local Area Network is eligible for discount. There is a rebuttable presumption that a network that crosses a public right-of-way is not an eligible Local Area Network.	
Maintenance	Maintenance that meets the conditions given in the heading "Technical Support" is eligible.	
Mast	A mast is a structure, or pole, on which an antenna is placed. Typically, it is a tall, vertical pole. Masts are eligible for discount as Internal Connections if necessary to support a Local Area Network .	
Media Converter	A media converter is a module that converts one type of media to another type of media for network compatibility. The actual media can vary, such as fiber, coax, or twisted pair. Media converters are eligible when used for eligible products of services.	
Messaging	See the entry for Voice Messaging in this section.	Not Eligible
Modem	Modems are devices that convert data signals into suitable form for transmission over a communications medium and recover data from the received communications link. Modems are eligible if used with, or in, eligible components of Internal Connections. They are not eligible if used with, or in, end-user equipment.	

Monitors	When used with an eligible server, one computer monitor per server is eligible for discount. Monitors used for workstations or other ineligible equipment are not eligible.	
Multimedia Kit	A multimedia kit is a package of hardware and software that adds multimedia capabilities to a computer. Typically a multimedia kit includes a CD-ROM or DVD player, a sound card, speakers, and a bundle of CD-ROMS. Multimedia Kits include content and/or are installed as end user equipment, and therefore are not eligible for discount.	Not Eligible
Multiplexing	A multiplexer is electronic equipment that allows two or more signals to pass over one communications, or bearer circuit. The "circuit" may be a telephone line, dedicated line, or radio signal. It provides an economic means for the service provider and customer to transport multiple circuits by combining, as an example, up to 24 voice grade circuits on a single bearer circuit. If provided as part of internal connections for a local area network it is eligible. If provided as part of a Wide Area Network, it must meet the rules governing WANs, as described in the sections Telecommunications Services and Internet Access.	
Multiport Serial Cards	A printed circuit card installed in an expansion slot of a computer that provides several serial communication ports, often for the purpose of connecting multiple modems. Multiport serial cards are eligible if the devices they support and the intended use of the cards are eligible. If used to provide remote access, see also the entry for Remote Access Router.	
Network Interface Card (NIC)	A network interface card is an electronic device that connects a workstation or server to a network. Usually this is a card that fits into one of the expansion slots inside a computer. It works with the network software and computer operating system to transmit and receive messages on the network. NICs are eligible if part of an eligible product, such as an eligible server, router, switch, or hub. NICs are ineligible if a part of a workstation. For wireless NICs, see the entry for Antenna.	
Network Interface Device (NID)	The Network Interface Device, or NID, is a device installed between a telephone network and the inside wire of a customer premises. The NID is generally provided by the telephone company and is the transition, or demarcation point between the company's network and the customer's inside wiring. A NID is the beginning of the Internal Connections on the customer's premises. Installed with Telecommunications Services, there is normally no charge for the NID. However, if a cost is associated with the installation of the NID, it is eligible for discount as Internal Connections. The NID also can be provided as a part of Telecommunications Services if it is installed coincident with a Telecommunications Service.	
Network Management	Network Management is a system of equipment or software used in monitoring, controlling, and managing a communications network. Network management software, services, and equipment are not eligible for discount.	Not Eligible


Pager	<p>A Pager (also known as a Beeper) is the receiving end of a paging service and is a small device worn on the belt, or carried in a handbag. Pagers provide text or voice messages, or both. The purchase, lease, or maintenance of pagers is not eligible for discount.</p> <p>A Paging Service may be eligible as a Telecommunications Service. See Paging Service in the Telecommunications Services section of this document.</p>	Not Eligible
PC Attendant Console	<p>The PC Attendant Console is an electronic PC (computer) based console used in support of, or in place of, a PBX system. The Console provides the capabilities and features of other attendant consoles, such as call transfers, answer button with queuing, emergency call priority, call waiting count, busy lamp field and many others.</p> <p>One Console qualifies for discount with each PBX, or in place of a PBX system, whether PC Attendant or another type.</p>	
Personal Computer	<p>Personal computers, or workstations, are computers designated, or designed for one person's use. They are distinguished from computers used in the routing of information to individual classrooms.</p>	Not Eligible
Personal Digital Assistant	<p>Personal Digital Assistant (PDA) is a handheld device that combines computing, telephone/fax, and networking features. A typical PDA can function as a cellular phone, fax sender, and personal organizer.</p> <p>PDAs are end user equipment that do not meet the definition of eligible Internal Connections, and therefore are ineligible for discount.</p>	Not Eligible
Power Poles	<p>Power poles are metal or plastic pipe or poles used to carry wire from the ceiling to the floor level. Power poles have the same eligibility conditions as given in the description for Conduit/Raceway in this section.</p>	
Power Strips	<p>Power strips provide multiple electrical commercial AC power outlets and can serve as an electrical extension cord. They may also protect equipment against voltage spikes and electrical disturbances (surge protections). Power strips are electrical devices ineligible for discount.</p> <p>However, a rack-mounted or cabinet-mounted power strip/surge protector may be included on an ancillary basis as a part of an eligible component such as an eligible equipment rack.</p>	Not Eligible
Printer	<p>A device that receives computer information and prints it on paper. Printers are not eligible for discount.</p>	Not Eligible

Private Branch Exchange (PBX) (wired & wireless)	<p>A PBX is a telephone switching system located at a business or organization's site. The PBX provides internal station to station dialing and access to the public switched network.</p> <p>A PBX and the core PBX operating system are, in general, eligible for discount. Some products may have modules or features that are not eligible. These include voice mail cards or software, E911 cards, Automatic Call Distribution, and programming modules or software. If these ineligible components are available separately, or the applicant specifically seeks the ineligible functions, their cost must be subtracted from the amount eligible for discount. If the ineligible components are not available separately, the full product may be eligible for discount, but only if the conditions for ancillary use apply. See the entry for Bundled Products in this section for further information.</p>	
Processor Terminator Card	The Processor Terminator Card is a device installed in a computer and used to signal the computer that only one processor is installed in a system permitting multiple processors. Systems permitting multiple processors must be equipped with a redundant processor or a Processor Terminator Card. The Processor Terminator Card is eligible if installed in an eligible server.	
Public Address (P.A.) System	A Public Address system allows the user to make announcements through the use of amplifiers and speakers. A Public Address system which is a stand-alone system and not integral as a bundled component of a PBX, Centrex or key system, is not eligible for discounts.	Not Eligible
PVBX	<p>A PVBX or Private Video Branch Exchange is a video PBX. The PVBX integrates the functionality of a PBX by providing <u>video integrated into the switching matrix of the PVBX</u>. The PVBX acts as a video distribution system linking classrooms and administration as well as traditional PBX methodologies. A PVBX follows the same eligibility requirements as a PBX—in general, it is eligible for discount. See the listing for PBX for detailed eligibility information.</p>	
Raceway	See Conduit	
Racks	A rack is a metal supporting framework for mounting cables, equipment or wires. It is eligible if the supported equipment is eligible.	
RAD	RAD, or rapid application development, is a programming system that enables programmers to quickly build working software. RAD is not needed to operate an eligible server and therefore is ineligible for discount.	Not Eligible
RAID	Short for Redundant Array of Independent Disks, RAID is a category of disk that employs two or more drives in combination for fault tolerance and performance. RAID disk drives are eligible only if used in an eligible component, for an eligible use. See the entries for Hard Disk Drive and Storage Products.	
Random Access Memory (RAM)	Random Access Memory (RAM) is the electronic holding place for instructions and data that a computer's microprocessor can reach quickly. Common types are SIMM, DIMM, RDRAM, SDRAM. RAM chips would be eligible as a component of an eligible product.	

Relay I/O Module	A Relay I/O Module is an interface that establishes Uninterruptible Power Supply (UPS) protection to equipment that has not been pre-designed for a UPS interface. The Relay I/O Module is only eligible if used with an eligible component	
Remote Access Router	<p>A remote access router provides one or more interfaces that allow dial up or remote access to a network. Remote Access Routers are eligible if steps are taken to ensure that only eligible entities will have the capability to access them. Remote access to the router cannot be available from homes or other non-school or non-library sites. Applicants are required to provide the following signed and dated certification to SLD that the conditions are met prior to approval.</p> <p>"The remote access equipment for which I seek discounts either will not be used to provide remote access in the funding year or, if it is to be used remotely, I will take steps to ensure that only entities eligible for support under the Schools and Libraries Support Mechanism have the capability to access it. In the latter case, for example, access will not be available from homes or other non-school or non-library sites."</p>	
Remote Access Server	A Remote Access Server or Communications Server provides dial-in and/or dial-out connections over analog or digital phone lines. See the entry for Remote Access Router in this section for eligibility conditions.	
Routers	<p>Routers are switching devices that can act as an interface between two networks, and connect different segments such as departments or floors in a building. Functionally, routers select the routing path for traffic, may provide features such as load balancing, and can provide trouble shooting diagnostic capabilities.</p> <p>A router and the core router operating system are eligible for discount when used for an eligible purpose. Some products may have modules or features that are not eligible, such as functionality for content filtering, management, firewall protection, proxy services, caching, Virtual Private Networks and security. If these ineligible components are available separately, or the applicant specifically seeks the ineligible functions, their cost must be subtracted from the amount eligible for discount. If the ineligible components are not available separately, the full product may be eligible for discount, but only if the conditions for ancillary use apply. See the entry for Bundled Products in this section for further information.</p>	
Satellite Dishes	<p>Satellite Dishes used for Wireless Wide Area Networks (WANs) are not eligible as Internal Connections. Satellite Dishes used for the receipt of over-the-air radio and television broadcast signals, or radio signals from cable television operators, are not eligible because these are not considered telecommunications services.</p> <p>Note, however, that satellite dishes may be provided as a part of an eligible leased service in other categories of service. See the entries for "Wide Area Network" and "Wireless Wide Area Network" in the Telecommunications Services section, and the entry for "Wide Area Network" in the Internet Access section.</p>	Not Eligible

Servers	<p>A server, or file server, is a shared computer on a local area network</p> <p>Servers are conditionally eligible for discount. Eligible file servers are intended to serve as a conduit for information rather than as a source for content. File servers used principally to supplement storage requirements of personal computers on a network are not eligible</p> <p>A network operating system associated with an eligible file server is likewise eligible for discount, including functionality provided with the core network operating system at no cost</p> <p>Eligible servers may be used in the following capacities.</p> <ul style="list-style-type: none"> DHCP Server Domain Name Server E-Mail Server Terminal Server <p>Ineligible uses include:</p> <ul style="list-style-type: none"> Archive or Data Warehouse Server Application Server Database Server <p>Additional ineligible uses include ⁶</p> <ul style="list-style-type: none"> Caching Server Firewall Server Print Server Proxy Server <p>A Web server used to provide information to users of the Internet is eligible for discount. A Web server used to provide substantial software applications, database functions or storage of end user files is considered an Application Server, Database Server, or Archive Server, respectively, and therefore is not eligible.</p> <p>A Remote Access Server (also called a Communications Server) is conditionally eligible. See that heading for further information.</p> <p>Funding requests must provide sufficient information for the SLD to understand the use(s) for file servers proposed. Examples: "File server" is not sufficiently specific; "file server used exclusively for e-mail" would be sufficiently specific.</p> <p>Servers that provide a combination of eligible and ineligible functionality are fully ineligible, unless they are able to be cost-allocated. See the entry for Bundled Products in this section for further information.</p>	<p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p>
Software	<p>E-mail Software – A server-based, shared software product that provides e-mail service is eligible. Such e-mail software may include basic calendar or scheduling functionality on an ancillary basis, but substantial additional functionality, including database, workflow, or groupware features, would make the software product fully ineligible, unless the ineligible portions are cost allocated. See the entry for Bundled Products in this section for further information.</p> <p style="text-align: right;">(continued on next page)</p>	

⁶ Such servers may not be dedicated to ineligible uses, but may provide such features coincidentally if they are included with core network operating system software

	<p style="text-align: right;">(continued from previous page)</p> <p>Operational Software – Software required to obtain operation of eligible equipment, such as network operating system software, is eligible if required as a core component of an eligible Internal Connection. Software available separately that provides optional operational features is not eligible for discount. Examples of ineligible operational software include separate products that provide caching, filtering, firewall, network administration, network management, and web site construction. Such functionality may be included as an ancillary component of otherwise eligible operational software, but only if the conditions for ancillary use apply. See the entry for Bundled Products in this section for further information.</p> <p>Application Software – Software such as word processor, spreadsheet, graphics programs, etc. that is accessed directly by end-users is not eligible for discount.</p>	<p>Not Eligible</p>
<p>Spare Parts</p>	<p>Spare parts are components on hand to replace hardware that fails. Spare parts are not eligible.</p>	<p>Not Eligible</p>
<p>Speakerphone</p>	<p>A speakerphone is a telephone, or telephone adjunct, which has a speaker and microphone for two way hands free conversation</p>	<p>Not Eligible</p>
<p>Speakers</p>	<p>Speakers for end users are not eligible. However, speakers may be provided as an integral component of an eligible product such as an eligible file server, if they are part of the standard product configuration and provided at no additional cost.</p>	<p>Not Eligible</p>
<p>Station Message Detail Recording</p>	<p>Station Message Detail Recording (SMDR) or Call Detail Recording (CDR) is a software/hardware PBX component that provides the ability to generate reports on call details. Those details include, but are not limited to, call duration, PBX station number, time and date, trunk route, dialed number and cost of call. SMDR is not eligible for discount.</p>	<p>Not Eligible</p>
<p>Storage Products</p>	<p>Products that provide electronic data storage on magnetic or other media, for eligible file servers or other eligible products, are conditionally eligible, based on whether the software and/or data stored provides an eligible purpose, e.g. if it is necessary to transport information all the way to individual classrooms.</p> <p>Data storage products in an eligible file server would be eligible when used to store the following information:</p> <ul style="list-style-type: none"> Network operating system files and functions, when the associated file server is used for an eligible purpose Software that facilitates Internet connectivity, e.g., <ul style="list-style-type: none"> Domain Name Service (DNS) software Dynamic Host Configuration Protocol (DHCP) software Web server software and files, except as excluded below E-mail software E-mail files <p style="text-align: right;">(continued on next page)</p>	

	(continued from previous page) Data storage products in a file server, and the file server itself, would be ineligible when used to store the following information: End user files other than e-mail Application software and data files Database software and files Caching of information from the Internet or a Wide Area Network Archival software and files Storage products that provide a combination of eligible and ineligible functionality are fully ineligible, unless they are able to be cost-allocated. See the entry for Bundled Products in this section for further information.	
Surge Protector	See the entry for Power Strip in this section.	Not Eligible
Switchboard	See the entry for Attendant Console, PBX/Centrex in this section.	
Switches	A switch is a mechanical or electronic device that completes or breaks an electrical path, or selects the paths for communication. More specifically, data switches provide capability similar to that described in the entry for Hub in this section, but additionally provide a dedicated bandwidth at each network port, rather than a shared bandwidth among all ports. Switches are eligible for discount.	
System Improvements and Upgrades	Improvements/upgrades to eligible services are eligible for discounts. Memory upgrades, for example, to eligible file servers are eligible, but would not be eligible in end user workstations	
Tape Backup	Tape Backup units, including technologies such as QIC, DAT, 8mm, DLT, AIT, and ADR, are eligible when used as part of an eligible server. They are not eligible when part of a PC, or workstation. A cartridge included with a tape backup unit may be provided as an integral component of the backup unit, if the cartridge is part of the standard product configuration and provided at no additional cost. The cost of purchasing additional or separate tapes is not eligible.	
Technical Support	Technical support is the assistance of a vendor-provided technician. This support may include the installation, maintenance, and changes to various service and equipment under contract. Technical Support is only eligible if it is a component of a maintenance agreement/contract for an eligible service or product, and it must specifically identify the eligible products or service covered by the contract	
Telephone, Telephone Instruments	Telephones, also known as telephone sets, telephone instruments, digital voice terminals, and voice terminals are the end user equipment used to transmit and receive voice telephone service. Telephones are not eligible for discount.	Not Eligible

Terminal Adapter	The Terminal Adapter (TA) is a device that connects a computer to an external digital communications line, such as an ISDN line. Terminal adapters are eligible if used with, or in, eligible components of Internal Connections. They are not eligible if used with, or in end-user equipment.	
Test Equipment	Test Equipment is used to test hardware software, cable continuity, telecommunications links, etc.	Not Eligible
Transceiver	A transceiver is a device that transmits and receives analog or digital signals. The term is used most frequently to describe the component in local area networks (LANs) that actually applies signals onto the network wire and detects signals passing through the wire. For many LANs, the transceiver is built into the network interface card (NIC), while others require an external transceiver. A transceiver is eligible for discount.	
Two Way Radio	Two way radios are wireless end-user devices used to communicate generally over short distances. Two way radios are not used to provide Telecommunications Services, and do not meet the definition of an eligible Internal Connections.	Not Eligible
TX to FX Converter	The TX to FX Converter is a cable converter that converts copper connection to a fiber connection, and is eligible for discount.	
Uninterruptible Power Supply (UPS)	An Uninterruptible Power Supply is a device that provides backup electric energy to a piece of equipment in the event of a power failure. A UPS is eligible if provided for use with an eligible component.	
UPS Interface Expander	A UPS Interface Expander is a device that provides additional ports on an existing UPS system, which allows for the power management of additional servers from one UPS. A UPS Interface Expander is eligible if provided for use with eligible components.	
Video Equipment	<u>Enhanced Multimedia Interface (EMMI)</u> The EMMI is an interface that gives PC and workstation users on ATM networks the ability to send and receive full-motion, high quality video, CD-quality stereo and high speed data. Signals are transformed into ATM cells and transported optically, using the Synchronous Optical Network (SONET) standard. EMMI is eligible for discount. <u>Master Control Unit</u> A Master Control Unit (MCU) is a device that controls the main operating functions of a video system. An MCU is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library. It is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library, but ineligible if used as end-user equipment.	

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	<p style="text-align: right;">(continued from previous page)</p> <p><u>MPEG Video Encoder</u> MPEG Video Encoder is a device similar to a CODEC that converts analog signals to compressed MPEG. See the entry for CODEC for eligibility conditions</p> <p><u>Multipoint Control Unit</u> A Multipoint Control Unit (MCU) is a bridging or switching device used in support of multipoint videoconferencing. It is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library</p> <p><u>Video Amplifiers</u> Video amplifiers and other video equipment necessary to deliver video services (but not broadcast or cable television) to the classroom are eligible for discount</p> <p><u>Video Channel Modulator</u> A Video Channel Modulator is a distribution box which takes standard video and audio input from video cameras, recorders, security systems, satellite receivers, disk players and video games and distributes the signals to the end user. It is eligible for discount.</p> <p><u>Video Group & Desktop Equipment</u> Equipment used to control the programming, distribution, and selection of video conferencing or televisions broadcast. It is eligible for discount if used in the transport of information for individual classrooms or publicly accessible rooms of a library, but is ineligible if used in end user equipment.</p> <p><u>End user video equipment</u> is ineligible for discount</p> <p><u>Media Retrieval Equipment</u> Media retrieval equipment is used to capture and record video signal. The system includes a computer, controller for record and playback function and imaging and system control software. The system acquires, digitizes and records video on disk for future use and viewing. The storage device is generally a computer hard drive. Media Retrieval Equipment is not eligible for discount.</p> <p><u>Television, video monitor</u></p> <p><u>VCR/DVD/CD Players or Recorders</u></p> <p><u>Video Camera</u></p>	<p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p> <p>Not Eligible</p>
Virtual Private Network (VPN) components	A Virtual Private Network (VPN) uses encryption and/or tunneling services in order to provide highly secure communication over the public Internet or in some cases over point-to-point links. Software and/or hardware equipment used for enhanced security features over a Virtual Private Network is not eligible for discount as Internal Connections	Not Eligible
Voice Compression Module	<p>The Voice Compression Module allows voice and fax traffic to share the same lines as data and LAN traffic.</p> <p>The Voice Compression Module is an eligible component of Internal Connections when it is installed in an eligible component.</p>	

Voice Interface Card	Voice interface cards (VIC) are usually components of a router or PBX system that interface with internal systems and the Public Switched Telephone Network, and are eligible for discount . Some examples of VICs are FXO Cards E&M Cards FXS Cards	
Voice Mail	Voice Mail , also called Voice Messaging , allows a machine or system to take a message if the party being called is not available. Additional features are often available, such as the ability to forward messages to one or more voice mailboxes in a system . Voice mail may be provided as an additional feature of a Private Branch Exchange (PBX) or can also be provided by a telephone company as an optional feature to telephone service Voice Messaging and all related equipment and charges are ineligible for discount	Not Eligible
Voice Messaging	See the entry for Voice Mail in this section.	Not Eligible
Voice/Fax Network Module	Voice/Fax modules are an access product that enables the transmission of multiprotocol data, voice, fax and LAN over frame relay, leased line, DDS or ISDN services. Voice/Fax modules are eligible when used with eligible equipment	
Voice/video over IP (VoIP)	Eligible Internal Connections components may include technology for providing real-time or near real-time voice or video over IP (VoIP) Note, however, that any additional service charges for providing VoIP capability as a part of Internet Access are not eligible. See the entry for Specialized Services in the Internet Access section	
Wire and Cable Maintenance	The maintenance of internal cabling is eligible for discount as a component of contracted technical support. See the entry for Technical Support for further information.	
Wire Manager	Wire Managers are wire restraints to house/arrange wiring and cabling. They can be aluminum or plastic and may be rack mountable. Wire Managers are eligible when used with eligible wiring/cabling	
Wireless PBX Adjunct	A Wireless PBX Adjunct functions in conjunction with a Private Branch Exchange, to provide wireless capability to the station end, and is eligible for discount	

Wireless Local Area Network	<p>A wireless Local Area Network has the same eligibility as other Local Area Networks. Hubs, access points, antenna and other components that provide a wireless Local Area Network capability are eligible for discount. See the entry for "Local Area Network" in this section for additional information.</p> <p>Network interface cards (NICs) installed in computer workstations are, in general, not eligible for discount. However, the antenna and radio frequency components of a workstation network interface card may be eligible. See the entry for "Antenna" in this section for additional information.</p>	
Wiring, Internal	<p>Internal wiring and related components that are eligible for discount include, but are not limited to: cable (copper/fiber/coax/twisted pair), bays, jacks, blocks, panels, and terminals necessary to transport information all the way to individual classrooms.</p> <p>Wiring that provides electrical service is not eligible.</p>	
Workstation	<p>A Workstation is a personal computer that may operate in a stand-alone environment, or may be connected to a host mainframe computer as part of a network. Workstations, personal computers, or other end user components are not eligible for discount.</p>	Not Eligible

MISCELLANEOUS		
The service category for entries in this section should reflect the same category as the product or service being installed or maintained—Telecommunications Services, Internet Access, or Internal Connections		
SERVICE	ELEMENT/DESCRIPTION	ELIGIBILITY
Cable TV Access	Video services are eligible only if provided as a commercially available Telecommunications Service. Cable providers are not considered providers of Telecommunications Services	Not eligible
Change Fees	Change fees for costs incurred in modifying an existing eligible service to another eligible service are eligible. Costs to terminate a service are not eligible.	
Configuration Charges	Charges for the configuration of eligible hardware and software are eligible.	
Construction Costs	Construction costs, e.g., the removal, creation, repair, or replacement of walls and doorways, generally are not eligible. However, construction incidental to component installation, that restores a facility to pre-installation conditions, is eligible. Asbestos removal is not eligible.	
Contingency Fees	In cases in which the scope of the work make it difficult to determine the specific costs beforehand, a service provider may include a reasonable contingency fee, but such a contingency fee is eligible only if it is a regular business practice of the service provider.	
Dark Fiber (excess capacity) (provided by service provider but "lit" by applicant)	Dark fiber refers to fiber optic cable that is unused, or "dark." Capital costs for transmission capability that does not have a direct and immediate use by eligible applicants are not eligible. Service providers can lease fiber capacity that does not include modulating electronics to schools or libraries, if the applicant provides the electronics to modulate the fiber. The lease of such fiber cable for obtaining Telecommunications Services or Internet Access is eligible, if the applicant's electronics are located solely at eligible school or library sites, and if the conditions apply that are described under the heading "Wide Area Network" in the relevant section (Telecommunications Services or Internet Access)	
Extended Warranty	Extended warranties are those that cover periods of time both within and outside the current funding year. Eligibility is limited only to that portion of the warranty within the current funding year. Extended or multi-year warranties must be prorated so only the portion of the warranty applicable to the current funding year is funded. If a multi-year warranty is included in the price of the equipment for all customers without a separately identified cost, proration is not required.	
Finance or Interest Charges	Finance or interest charges assessed for loans to fund the lease or purchase of products or services are not eligible.	Not Eligible

Freight Assurance Fees	Freight assurance fees are fees assessed to the purchaser for the guarantee of safe delivery to their premises of goods, i.e., they provide shipping insurance. Freight assurance fees are eligible for discount if associated with eligible components	
Leasing Fees	Leasing fees charged for the use of eligible services and products are eligible. However, any finance charges, associated with leasing or otherwise, are not eligible.	
Per Diem	Per Diem is a dollar amount designated to a vendor for daily expenses such as lodging and food. It may or may not include travel time. It is eligible for funding if a contract with a vendor for eligible services specifically stipulates or allows for per diem. It is not eligible if it is not part of a contract or bid.	
Performance Bond	A Performance Bond, also known as a Bid Bond, is a legal obligation, generally obtained by the vendor or contractor from a third party, that guarantees the terms of the contract or agreement are met. In the event of default or failure to meet the terms, the bond would be used to complete the contracted work. Performance Bonds are not eligible.	Not Eligible
Professional Services	<p>The category of service specified for Professional Services, i.e., Telecommunications Services, Internet Access, or Internal Connections, should reflect the appropriate service category for the professional service being obtained</p> <p><u>Design & Engineering Costs</u>—Design and engineering costs are eligible if they are coincident with the installation of eligible equipment or services and if part of a contract or bid for those eligible products or services.</p> <p><u>Installation</u>—The charges incurred for the installation of eligible Telecommunications Services, Internal Connections and Internet Access are eligible for discount.</p> <p><u>Maintenance</u>—Maintenance is eligible for discount only if it is a component of a maintenance agreement/contract for an eligible service or product. The agreement or contract must specifically identify the eligible products or services covered.</p> <p><u>Project Management</u>—Costs associated with the overall management of the installation and initial operation of eligible products and services are eligible if they are part of a contract or bid for the eligible products and services</p> <p><u>Training</u>—Training is eligible only if it is basic instruction on the use of eligible equipment, coincident with and directly associated with the installation of such equipment. Training of teachers and staff in the use of covered services in their programs of instruction or for professional development is not eligible for discount</p> <p><u>Consulting Services</u>—Costs of expertise in areas such as initial planning, consulting, development of technology plans, application assistance, and program advice are not eligible</p> <p><u>Personnel Costs</u>—Labor costs for schools and library personnel are not eligible for discount.</p>	<p>Not Eligible</p> <p>Not Eligible</p>

Programming Charges	Creation of customized software through the programming of computer code is ineligible	Not Eligible
Shipping Charges	Shipping Charges are the charges associated with the delivery of products from their point of origin to the customer premises. Shipping Charges are eligible for discount when they are for the delivery of eligible products or services.	
Taxes, Surcharges and Access Charges	Federal taxes, state taxes, and other similar, reasonable charges incurred in obtaining eligible Telecommunications Services, Internet access and internal connections are eligible	
Termination Charges	Charges for termination liability or other charges not involved with obtaining or initiating eligible services are not eligible.	Not Eligible
Travel Time	The cost of travel to and from a work site is eligible for discount only if a contract with a vendor for eligible services stipulates, or allows, travel time. It is not eligible if it is not part of a contract or bid.	